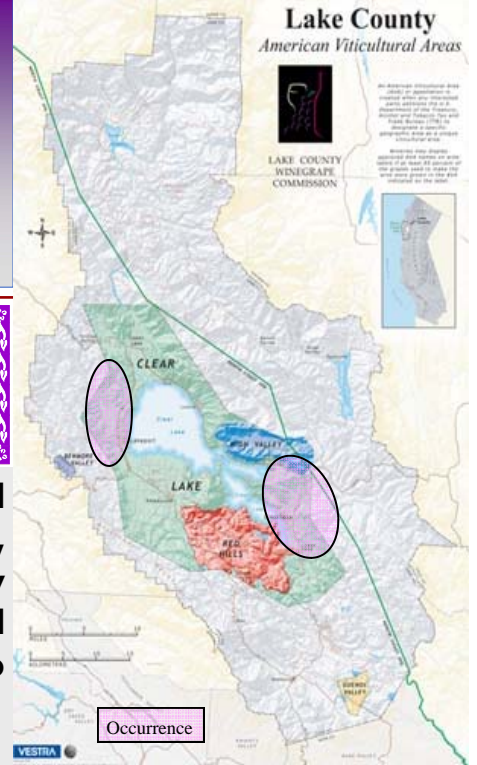




Lake County, California Soils

Manzanita



“...may it be that the land chooses the crop, not otherwise.”
- anonymous

Manzanita soils are very deep soils formed in alluvial sediments under oak, brush and grass. They are mature, somewhat slowly permeable soils of limited fertility found on gently to strongly sloping terraces.



Manzanita Soil Profile:

- 0 - 1.5 ft: dark brown gravelly loam and loam
- 1.5 - 3 ft: reddish brown loam
- 3 - 4 ft: dark reddish brown gravelly clay loam
- > 4 ft: dark reddish brown very gravelly clay loam



Fitness for Use in Vineyards:

- **Nutrient Cycling:** Organic amendments and cover crops improve nutrient supply, tilth, and pH. These soils will respond to fertilization. Avoid acid fertilizers. Monitoring of acid-sensitive nutrients such as phosphorus and calcium is helpful.
- **Water Relations:** Soil depth should not be a limiting factor in grapevine root distribution on these soils; uniform root distribution should be expected.
- **Management Considerations:** Susceptible to compaction, rutting, and significant soil erosion on sloped ground; soils are also susceptible to organic matter loss.

Wine grapes growing on Manzanita soils, Seely's Robin Hill Vineyard, Upper Lake, California. The scale is in feet.

Soil Climate and Geography:

Mean annual precipitation: 25 to 35 inches
Frost-free days: 160 to 200 days
Elevation Range: 1,350' to 1,600'
Slope Range: from 2 to 25%
Slope Direction: northeast to southeast-facing



Manzanita Soil Properties of Interest:

Available water-holding capacity: 10 inches (0-5 ft)
Drainage class: well drained
Permeability class: moderately slow permeability

Clay range in profile: 15 - 32%, increasing with depth
Sand range in profile: 40 - 30%, decreasing with depth
Coarse fragment range: 5 - 35%, variable with depth

Soil pH range: pH 5.7 in upper part, pH 5.3 in lower part